

CLAIMS

1. A method for administration by inhalation of metered dry powder doses of finely divided dry medication powder of an anticholinergic agent using a dry powder inhaler device, comprising the steps of

5 selecting as medicament an anticholinergic agent or a pharmaceutically acceptable salt, enantiomer, racemate, hydrate, or solvate, including mixtures thereof, and where the medication powder may optionally further include excipients, for treatment of a respiratory disorder in a user;

preparing a metered dry powder medicinal dose comprising a
10 medicinally effective quantity of the selected medicament onto a dose bed;

sealing the dose moisture-tight by using a high barrier seal, and

introducing the dose into an inhaler device provided with an Air-
razor device for obtaining a fine particle fraction, FPF, of at least 30 - 50 % of
delivered powder mass when suction through the inhaler is applied, whereby the
15 dose is delivered to and deposited in the lung of the user during a single
inhalation effort.

2. The method according to claim 1, comprising the further step of
aerosolizing the deposited powders of the doses gradually over a
20 period of time inside the single inhalation effort by the user.

3. The method according to claim 1, comprising the further step of
selecting as medicament the anticholinergic agent ipratropium
bromide, said medicament optionally including excipients, in forming doses.

25 4. The method according to claim 1, comprising the further step of
selecting as medicament the anticholinergic agent tiotropium
bromide, said medicament optionally including excipients, in forming doses.

30 5. The method according to claim 1, comprising the further step of

selecting as medicament the anticholinergic agent oxitropium bromide, said medicament optionally including excipients, in forming doses.

6. The method according to claim 1, comprising the further step of
5 preparing the dry powder medicinal dose to a total mass in a range from 5 μ g to 50 mg.

7. A dose of pharmaceutical dry powder, adapted for administration by inhalation using a dry powder inhaler device (DPI), wherein

10 a medicament is selected for forming a pharmaceutical, metered dose of an anticholinergic agent or a pharmaceutically acceptable salt, enantiomer, racemate, hydrate, or solvate, including mixtures thereof, and where the medicament may optionally further include excipients;

15 the dose of the selected medicament is deposited onto a dose bed and adapted for prolonged delivery, and

the dose is sealed moisture-tightly by the use of a high barrier seal.

8. The dose according to claim 7, wherein

20 when the dose has been introduced into the inhaler device adapted for a prolonged delivery and suction through the inhaler is applied, the powder of the dose will be aerosolized by means of an Air-razor device, whereby a majority by mass of the delivered dose is deposited in the lung during a single inhalation effort by a user.

25 9. The dose according to claim 8, wherein

the deposited powder of the dose is aerosolized gradually over a period inside the single inhalation effort by the user.

10. The dose according to claim 7, wherein

30 ipratropium bromide is selected as medicament, optionally including excipients, in forming the dose.

11. The dose according to claim 7, wherein
tiotropium bromide is selected as medicament, optionally including
excipients, in forming the dose.

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12. The dose according to claim 7, wherein
oxitropium bromide is selected as medicament, optionally including
excipients, in forming the dose.

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